



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,675	02/25/2002	Cornelis Margaretha Theodorus Maria Bongers	VERHEES 207-KFM	2574

7590 05/19/2005

Karl F Milde Jr  
Milde Hoffberg & Macklin  
Suite 460  
10 Bank Street  
White Plains, NY 10606

EXAMINER

MADSEN, ROBERT A

ART UNIT	PAPER NUMBER
----------	--------------

1761

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/018,675

Applicant(s)

BONGERS, CORNELIS  
MARGARETHA THEODORUS

Examiner

Robert Madsen

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 19-30 and 33-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-30 and 33-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The Amendment filed February 17, 2005 has been entered. Claims 35-49 have been added. Claims 19-30, 33-49 remain pending in the application.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 19, 21, 22, 35, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorlich et al. (US 5901848) in view of Krebs (US 5896994).
4. Regarding claims 19, 21, and 22, the amended claim 19 limitations are all understood to mean different compartments have different film parts (i.e. a gas permeable material over one compartment and a gas reactive material over another compartment), as addressed in the Office Action mailed December 13, 2004. Thus the rejection of claims 19, 21, and 22 is maintained for the reasons stated in the Office Action mailed December 13, 2004.
5. Regarding new claims 35 and 39, Gorlich et al. are silent in teaching the film structure, includes an oxygen scavenging material that reacts with or absorbs oxygen. Krebs teaches products stored in low oxygen packaging utilizing modified atmosphere packaging and an oxygen impermeable film will include an oxygen scavenger to provide

Art Unit: 1761

the lowest possible oxygen level in order to extend the shelf life. Krebs teaches the conventional oxygen scavenger is not easily incorporated into a film, but Krebs teaches an oxygen-scavenging strip that absorbs and reacts with oxygen that is easily applied to a cover film (Note Column 1, line 5 to Column 2, line 20, column 3, line 35 to Column 4, line 38, Column 4 line 48 to Column 5, line 31). Krebs teaches the benefit of providing an oxygen scavenger strip is that it is easy to dispense, easy to adhesively attach, and easy to tailor for each type of package (Column 1, lines 35-63, Column 6, lines 4-28). Krebs teaches the structure could be used for low oxygen meat trays covered by gas impermeable films (Column 2, lines 54-66). Therefore, it would have been obvious to modify Gorlich et al. and include on the part of the film structure with the gas impermeable material an additional material that reacts with and absorbs oxygen in a compartment of the tray, as recited in claims 35 and 39 since Krebs teaches applying an oxygen scavenging strip to a film applied to a modified atmosphere tray package will not only protect oxygen-sensitive foods, such as meat as taught by Gorlich, but provides the lowest possible oxygen level in order to extend the shelf life, while still being easy to dispense, attach, and tailor to a given film structure.

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gorlich et al. (US 5901848) in view of Krebs (US 5896994) as applied to claims 19, 21, 22, 35, 39 above, further in view of Myers (US 4515266).

7. The rejection is maintained for the reasons stated in the Office Action mailed December 13, 2004.

Art Unit: 1761

8. Claims 33,40,46-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorlich et al. (US 5901848) in view of Krebs (US 5896994) as applied to claims 19,21,22,35,39 above, further in view of Speer et al. (US 5211875).

9. As discussed above in the rejection of claims 19,21,22,35,39, modified Gorlich et al. includes the oxygen scavenger film of Krebs adhesively applied to the gas impermeable part of the film structure, but are silent in teaching the film structure includes a material which passively manipulates radiation, as recited in claim 33, includes an oxidizable organic compound and a metallic transference catalyst that becomes activated by radiation to remove oxygen as an oxygen scavenger as recited in claims 46-49, or includes an oxygen scavenger comprises nylon polymer and a cobalt catalyst as recited in claim 40.

10. Krebs teaches such oxygen scavenger films can be initiated by the method taught by Speer et al. (Column 4, lines 60-66) and the oxygen scavenging material comprises an oxidizable organic compound and a metallic transference catalyst, most preferably cobalt, (Column 5, lines 5-32).

11. Speer et al. teach initiating oxygen scavenger material, which comprises the same oxidizable organic compound and a metallic transference catalysts taught by Krebs, attached to the film by exposing them to radiation so that an oxygen scavenging material substance, becomes activated, changes their characteristics, and removes oxygen (Abstract, Column 6, line 58 to Column 7, line 1), as recited in claims 33 and 46-49. Speer et al. further teach a nylon polymer are suitable (i.e. polyamides) and, like Krebs, cobalt catalyst is most preferred, as recited in claim 40 (Column 3 35-55 and

Art Unit: 1761

Column 4, line 64 to Column 5, line 5). Therefore, it would have been obvious to further modify Gorlich et al. such that the parts of the film structure include a material which passively manipulates radiation applied to the tray, as recited in claim 33, so that an oxygen scavenging which comprises an oxidizable organic compound and a metallic transference catalyst becomes activated, changes characteristic and removes oxygen as recited in claims 46-49, since Krebs teach applying an oxygen scavenger material that comprises an oxidizable organic compound and a metallic transference catalyst to the impermeable part of the film structure so that the scavenger material can be initiated by the method taught by Speer et al. and Speer et al. teach scavenging material comprising an oxidizable organic compound and a metallic transference catalyst becomes activated, changes characteristic, and removes oxygen by radiating the oxygen scavenger comprising film structure that passively manipulates radiation. It would have been further obvious to select a polymer of nylon with a cobalt catalyst as recited in claim 40 since Speers and Krebs teach a cobalt catalyst is most preferred and Krebs teaches nylon polymers are suitable.

12. Claims 41, 43, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorlich et al. (US 5901848) in view of Krebs (US 5896994) as applied to claims 19,21,22,35,39 above, further in view of Iwauchi et al. (US 5390475).

13. Modified Gorlich et al. includes a oxygen-scavenging agent over a low oxygen compartment . Gorlich et al. includes food items such as meat covered by an impermeable cover with a low oxygen environment in combination with either lettuce

Art Unit: 1761

(for allowing lettuce to breathe and stay fresh) or bread (for allowing bread to breath to prevent sogginess) covered by a permeable cover film (Column 3, lines 3-11, Column 3, lines 56 to Column 4, line 15). Gorlich et al. also teach dip with a high barrier cover and vegetables with a low barrier cover (Column 4, lines 16-22). Gorlich et al. further teach other items may included the combination of berries and cream, chips and salsa, and yogurt and fruit (Column 4, lines 23-25). However, Gorlich et al. are silent in teaching the film structure includes a carbon dioxide absorbers as recited in claim 41, ethylene absorbers as recited in claim 43, or moisture absorbers as recited in claim 45.

14. Iwauchi et al. also teach attaching a freshness keeping agent to the cover film of a tray (i.e. a film structure comprises the impermeable film with a freshness keeping agent on it) includes oxygen absorbers(oxygen scavenging agents), but may further include desiccating agents (i.e. moisture absorbing as recited in claim 45) as well as a detection agent so that one can view if oxygen or humidity is present to indicate if either the package has been opened or if the product has deteriorated. Iwauchi et al. further teach the freshness keeping agent may also include carbon dioxide absorbers as recited in claim 41 and ethylene absorbers as recited in claim 43 (Column 1, lines 5-25, Column 2, line 19 to Column 3, line 4, column 6, lines 24-29)

15. Therefore, it would have been obvious to further modify Gorlich et al. and include a moisture absorber , along with a detecting agent, in a part of the film structure ,as recited in claim 45, depending on the particular food item stored in the compartment, since Gorlich et al. teach it is important to remove moisture from the permeable film covered section when some products, such as bread is stored to prevent sogginess

Art Unit: 1761

and Iwauchi et al. teach the freshness keeping agent included on the cover film structure with a detecting agent may be moisture absorbing to indicate moisture that is evidence of a food deteriorating (or becoming too moist, or soggy in the case of bread). It also would have been further obvious to include an ethylene absorber or a carbon dioxide absorber in part of the film structure as recited in claims 41 and 43, depending on the particular product in the compartment since Gorlich et al. teach a compartment may include lettuce, fruit, vegetables, or berries, and it was notoriously well known that (1) respiring produce (i.e. in the presence of oxygen) generate carbon dioxide and ethylene gas, (2) the level of carbon dioxide and ethylene present in a fresh produce package affects the rate of ripening and (3) ethylene will cause an undesirable odor, and Iwauchi et al. teach the freshness keeping agent may include carbon dioxide and/or ethylene gas absorbers, which would allow one to control the ripening rate and/or remove any ethylene odor.

16. Claims 36-38,42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorlich et al. (US 5901848) in view of Krebs (US 5896994) as applied to claims 19,21,22,35,39 above, further in view of Nakamura et al. (US 4384972).

17. Regarding claims 36 and 42, modified Gorlich et al. includes an oxygen scavenging agent attached to a cover over a compartment of a tray, but are silent in teaching the scavenging material is a iron powder, sulphite or ascorbic acid, as recited in claim 36 or emits carbon dioxide as recited in claim 42.



Art Unit: 1761

18. Nakamura et al. also teach adding freshness keeping agent to a container holding meats, breads, fruits and vegetables. Nakamura et al. teach that it is preferred to include a freshness keeping agent for fruits and vegetables, for example, includes an oxygen scavenging agent comprising an iron powder, a sulphite, or ascorbic acid, and that emits carbon dioxide because the lack of oxygen and increased presence of carbon dioxide will inhibit respiration and permit a long time storage. (Abstract, Column 2, lines 17 –62, Table 1, Column 5, line 55 to Column 6, line 2). Therefore, it would have obvious to further modify Gorlich et al. and include an oxygen scavenging agent with an iron powder, a sulphite, or ascorbic acid, and that emits carbon dioxide for a container holding fruits and vegetables, depending on the desired storage time for the fruit or vegetable, since Nakamura et al. teach such an oxygen scavenging will inhibit respiration and permit a long time storage.

19. Regarding claims 37 and 38, modified Gorlich et al. includes an oxygen scavenging material attached to a cover over a compartment of a tray, but are silent in teaching glucose oxidase, as recited in claims 37 and 38. Nakamura et al. teach glucose oxidase is a known oxygen-scavenging agent used to effective remove oxygen from a food container and provide a low oxygen environment, but that the glucose oxidase requires moisture for activation and is most effective with foods of a high moisture content (Column 1, lines 15-57). Therefore, to further modify Gorlich et al. and include glucose oxidase as the oxygen scavenger would have been obvious, depending on the particular moisture content of the food held in the container, since Nakamura et

Art Unit: 1761

al. teach glucose oxidase is effective at establishing a low oxygen environment in a food container given that the food has a high moisture content.

20. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gorlich et al. (US 5901848) in view of Krebs (US 5896994) as applied to claims 19,21,22,35,39 above, further in view of Iwauchi et al. (US 5390475) and Ando (US 4550026).

21. Modified Gorlich et al. includes a oxygen-scavenging agent over a low oxygen compartment. Gorlich et al. includes food items such as meat covered by an impermeable cover with a low oxygen environment in combination with either lettuce (for allowing lettuce to breathe and stay fresh) or bread (for allowing bread to breath to prevent sogginess) covered by a permeable cover film (Column 3, lines 3-11, Column 3, lines 56 to Column 4, line 15). Gorlich et al. also teach dip with a high barrier cover and vegetables with a low barrier cover (Column 4, lines 16-22). Gorlich et al. further teach other items may included the combination of berries and cream, chips and salsa, and yogurt and fruit (Column 4, lines 23-25). Gorlich et al. are silent including materials such as ethanol emitting substances.

22. Ando teaches bread, vegetables, fruit, and especially high moisture meats may be preserved in the presence of an ethanol atmosphere (abstract, Column 1, lines 5-65, Column 2, lines 30-35).

23. Iwauchi et al. teach a freshness keeping agent including an oxygen scavenging agent on the cover film of a tray (i.e. a film structure comprises a freshness keeping

Art Unit: 1761

agent), may further include alcohol transpiration agents (Column 1, lines 5-25, Column 2, line 19 to Column 3, line 4, column 6, lines 24-29).

24. Therefore, it would have been obvious to further modify Gorlich et al. and include on part of the film structure ethanol emitting substances, depending on the particular food stored, since Gorlich et al. teach preserving bread, vegetables, fruit, and meats in a controlled atmosphere, Ando teaches an ethanol atmosphere will especially preserve high moisture meats, as well as bread, vegetables and fruits, and Iwauchi et al. teach it including both alcohol transpiration agents and oxygen scavenging agents attached to the cover film of a tray.

25. Claims 23,26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorlich et al. (US 5901848) in view of Krebs (US 5896994).

26. Regarding claims 23, 19 limitations are all understood to mean different compartments have different film parts (i.e. a gas permeable material over one compartment and a gas reactive material over another compartment), as addressed in the Office Action mailed December 13, 2004. Thus the rejection of claims 23,26-30 is maintained for the reasons stated in the Office Action mailed December 13, 2004.

27. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gorlich et al. (US 5901848) in view of Krebs (US 5896994) as applied to claims 23,26-30 above, further in view of Rooney et al. (WO9910251).

28. See the reasons stated in the Office Action mailed December 13, 2004.

29. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gorlich et al. (US 5901848) in view of Krebs (US 5896994) as applied to claims 23,26-30 above, further in view of Myers (US 4515266).

30. See the reasons stated in the Office Action mailed December 13, 2004.

31. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gorlich et al. (US 5901848) in view of Krebs (US 5896994) as applied to claims 23,26-30 above, further in view of Speer et al. (US 5211875).

32. See the reasons stated in the Office Action mailed December 13, 2004.

### ***Response to Arguments***

33. Applicant's arguments filed February 17, 2005 have been fully considered but they are not persuasive.

34. Applicant contends that the art of packaging food for sale is an extremely crowded art, and as such even small advances in the art would be "unobvious". Applicant admits that it was notoriously well known in the art to have a container with different compartments with a film structure having different film parts for each compartment, as well as the inclusion of oxygen scavengers in low oxygen environments, and Applicant asserts that no one has taken the step to provide a gas reactive film part over a particular compartment.

Art Unit: 1761

35. Krebs, just prior to the time that the Applicant's invention was made, taught an oxygen scavenger strip that may be selectively applied to a desired film parts of a film structure (i.e. of any desired dimension). Krebs teaches an oxygen scavenging film strip is an improvement over the conventional oxygen scavenging packets and conventional oxygen scavenger containing film/container structures because the strip allows one to custom fit the oxygen scavenger to a specified size (length and width) such that only a certain film part of a film structure includes the oxygen scavenger (Column 1, line 26 to Column 2, line 20, Column 2, lines 54-66, Column 5, lines 62 to Column 6, line 13). Thus, prior to Krebs, it was not known how to limit the size of a oxygen scavenging film so that one may efficiently supply an oxygen scavenger to meet the dimensional requirements of the user. At the time Applicant's invention was made, one of ordinary skill in the art would have recognized that Krebs "custom-fit" feature would allow one to easily supply a compartmented container, such as the one of Gorlich et al., with an oxygen scavenger over a specific compartment requiring a low oxygen environment compartment, as opposed to including an oxygen scavenging packet in the low oxygen compartment or exposing all of the compartments of entire container to the oxygen scavenger.

36. In response to applicant's argument that the prior art does not teach utilizing the gas-reactive film is so that separate atmospheres are not required for each compartment, it is first noted that this feature (i.e. separate gas atmospheres in each compartment) is not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

Art Unit: 1761

See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In addition it is further noted that the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). In the instant case, Krebs provides motivation for utilizing a gas reactive strip in combination with a conventional meat package: assure no oxygen is present during storage, which is the object of the meat compartment of Gorlich et al., on a desired part of the cover film, such as over the low oxygen compartment.

### ***Conclusion***

37. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

38. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


Art Unit: 1761

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

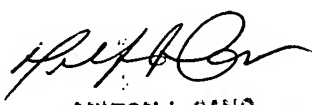
39. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Madsen whose telephone number is (571) 272-1402. The examiner can normally be reached on 7:00AM-3:30PM M-F.

40. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

41. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert Madsen   
Examiner  
Art Unit 1761

RAM

  
MILTON I. CANO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700